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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,771	07/31/2003	Seo, Kwang Kim	HI-0154	8462

34610 7590 12/13/2006

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EXAMINER

DU, THUAN N

ART UNIT PAPER NUMBER

2116

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/630,771

Applicant(s)

KIM, SEO KWANG

Examiner

Thuan N. Du

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-33 are presented for examination.

#### *Claim Objections*

2. Claims 1-5 and 16 are objected to because of the following informalities:

In claim 1, the power mode recited in line 3 is the power mode of a computer system while the power mode recited in line 7 is the power mode of a device. As such, the phrase “wherein the device driver is configured to changed the power mode of the corresponding device among the at least one of the operating mode and the power down mode” should be read as -- wherein the device driver is configured to changed a power mode of the corresponding device among at least one of an operating mode and a power down mode --. Appropriate correction is required.

In claim 16, the phrases “the second mode” and “the first mode” in line 3 should be -- the second power mode -- and -- the first power mode -- respectively. Appropriate correction is required.

Claims 4-5 are also objected for incorporating the above deficiency by dependency.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 2, 3 8, 17-20 and 31-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2, 3, 8, 17 and 31 recite the limitations "the idle state" (first occurrence of each claim). There are insufficient antecedent basis for these limitations in the claims.

Claims 18-20 and 32-33 are also rejected for incorporating the above deficiency by dependency.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Souza et al.

[Souza], U.S. Patent No. 7,103,788.

7. Regarding claim 1, AAPA teaches an apparatus for managing power in a computer system, the apparatus comprising:

an operation system configured to set up a power mode of the computer system, wherein the power mode includes at least one of an operating mode and a power down mode [at col. 1, lines 56-59, Souza stated that “ . . . any devices on the bus . . . to enter a low power mode *even while* the computing system retains full operation power” (emphasis added). As such, one of

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ordinary skill in the art would have recognized that the devices on the bus are allowed to enter a low power mode while the computing system is in either full operation mode or power down mode. Therefore, Souza teaches the claimed limitation];

at least one device (90, 92) configured to perform specific functions and operations [col. 3, lines 4-5];

at least one device driver configured to control operations on a corresponding device, wherein the device driver is configured to change a power mode of the corresponding device among at least one of an operating mode and a power down mode [col. 3, lines 54-56].

a filter driver (USB core stack) coupled to the operation system, wherein the filter driver is configured to individually control a selected device to operate in the power down mode when the computer system is in the operating mode [col. 1, lines 56-59; col. 3, lines 39-56; col. 16, lines 36-40].

8. Regarding claim 2, Souza teaches that the selected device is operated in the power down mode by the filter driver after receiving an operation signal at the selected device when the selected device is in the idle state longer than a predetermined time or the idle state of the selected device is not reset longer than the predetermined time [col. 3, lines 39-49].

9. Regarding claim 3, Souza teaches that the filter driver monitors transceived packets between the operation system and the device driver and detects each device in the idle state [col. 4, lines 4-12].

10. Regarding claim 4, Souza teaches that the filter driver generates and outputs a FIRP configured to change the power mode the power mode of the corresponding device from the operating mode to the power down mode [col. 4, lines 12-17].

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11. Regarding claim 5, Souza teaches that the device and the device driver comprise a sound card and a sound driver [col. 4, lines 23-25].

12. Regarding claims 6 and 7, Souza teaches a method comprising:

operating a computer system in first and second power modes [at col. 1, lines 56-59, Souza stated that "... any devices on the bus ... to enter a low power mode *even while* the computing system retains full operation power" (emphasis added). As such, one of ordinary skill in the art would have recognized that the devices on the bus are allowed to enter a low power mode while the computing system is in either full operation mode or power down mode.

Therefore, Souza teaches the claimed limitation];

operating devices in the computer system in the first and the second power modes [col. 1, lines 56-58]; and

controlling a selected device in the second power mode when the computer system is in the first power mode [col. 1, lines 56-59].

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 8-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Souza et al. [Souza], U.S. Patent No. 7,103,788.

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15. Regarding claims 8, 9, 13 and 14, Souza teaches that the controlling step comprises: detecting at least one device that is in idle state and changing the power mode of a corresponding device from the operating mode to a power down mode [col. 3, lines 54-56]. Souza does not explicitly teach that counting idle time for each of the detected devices in the idle state.

However, one of ordinary skill in the art would have recognized that Souza obviously includes a timer for placing the device into power down mode after a predetermined time.

16. Regarding claim 10, Souza teaches that the detecting step comprises: monitoring transceived packets between an operation system in the computer and device drivers and detecting the idle state if the devices [col. 4, lines 4-12].

17. Regarding claims 11 and 12, Souza teaches the changing comprises: generating a control message at the filter driver and transferring the control message to a corresponding device [col. 4, lines 12-17].

18. Regarding claim 15, Souza does not explicitly teach that the system generates a power control message indicating the system power mode to the device and changing the power state of the device accordingly. However, one of ordinary skill in the art would have obviously recognized that the device must know the system power state before the device can change its power state (the device cannot be in operation power state while the system is in power down state).

19. Regarding claim 16, Souza teaches that the controlling step comprises independently controlling two of a plurality of devices or each of the devices to operate in the second power mode when the computer system is in the first power mode [col. 3, lines 57-62].

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20. Regarding claims 17-33, they do not teach or further define over the limitations recited in the rejected claims above. Therefore, claims 17-33 are also rejected as being unpatentable over Souza for the same reasons set forth in the rejected claims above.

***Conclusion***

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan N. Du whose telephone number is (571) 272-3673. The examiner can normally be reached on Monday-Friday: 9:30 AM - 6:00 PM, EST.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached at (571) 272-3676.

Central TC telephone number is (571) 272-2100.

The fax number for the organization is (571) 273-8300.

22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

TD  
December 8, 2006

  
THUAN N. DU  
PRIMARY EXAMINER